

An Analytical Study of the Visual and Perceptual Elements of Traditional Chinese Colors

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Abstract : Color and artistic expression are intrinsically intertwined. Color is more than just the most basic human sensory experience; it is also a psychological phenomenon and ideology derived from human social interactions, as well as a visual sign used to transmit emotional information. The study of the relationship of visual and perceptual color features adds to a better understanding of traditional Chinese culture and is of great theoretical significance. The deliberate development of color visual elements and color perceptual elements in modern design in the manner of ancient Chinese color research, as well as the significance of color as a functional part of visual communication to enable people to receive information One of the most significant implications is the relationship of color and perception. According to American semiotic scholar Charles Sanders Peirce and Korean design professor Choi Albert Young of Hanyang University, the "Triad Relationship" of visual expression type in the "Cultural Code Brand Design Methodology" is a study approach that can aid Chinese designers. The study of color's visual and perceptual components aids in the recognition and comprehension of traditional Chinese colors. Color is still used as a messenger for many demands in modern design. We can investigate creative expression by examining three types of traditional Chinese colors, namely "official costume," and "folk costume," all of which are associated with the Sui and Tang dynasties. To engage into artistic expression, the core of color is modified. In this way, we demonstrate color construction understanding through the use of traditional Chinese hues in modern design, as well as a multi-layered interpretation rich in cultural value.

KEYWORDS : Chinese traditional color, Color visual elements, Color perception elements, Color functionality , Cultural Codes.

I. Introduction

1.1 Background and significance of the study

Color and art are intrinsically intertwined. Claire Pajaczkowska(2001) "Every culture has a distinct visual feature. For most people, culture's visual side is the imaginative, stylistic, and pictorial symbolism that is the most powerful component of culture's sophisticated and elaborate communication system ". Traditional Chinese colors, which are the genes of traditional culture, transmit creativity notion and emotional orientation. The study of the relationship between visual and perceptual color features is important theoretically and contributes to a better understanding of traditional Chinese culture.

Traditional Chinese colors moved from a focus on physical characteristics to a focus on the philosophical and psychological understanding of color, giving rise to the concept of psychological beliefs(2013). Exploring the Meaning of Color in Ancient Chinese Culture. The Shanghai Ancient Books Publishing House. Modern Chinese color application, for example, is a surface phenomenon, whereas traditional Chinese color perception is based on cognitive roots, most notably the traditional Chinese cultural spirit.

As a result of the aforementioned, this researcher believes that color can be used to represent feelings. And the study of traditional Chinese color notions has shifted from a focus on the physical aspects of color to a focus on the philosophical and psychological concepts of color.

1.2 Research objectives and methods

The traditional Chinese color concept system's most fundamental existential meaning is essentially "concept"(1985). The existence of color perceptual elements has a strong purposeful design, because color is a cognitive expression about social construction and also embodies a multi-layered interpretation full of cultural meaningful expressions.

The application of color visual elements and color perception elements of purposeful constructs in modern design to the form of traditional Chinese color studies, as well as the significance of color as a functional part of visual communication so that people can obtain information.

In Culture Code Brand Design Methodology(2018), American semiotic scholar Charles Sanders Peirce and Choi Albert Young, a professor of design at Hanyang University in Korea, analyze the "Triad Relationship" of visual representation type as a research method, and the visual and perceptual elements of color are explored to help the recognition and understanding of traditional Chinese colors.

1.3 Scope of the study

The use and expression of color as a carrier according to diverse purposes is still relevant in modern design. The representative "official costume," and "folk costume," tow sorts of performance things were identified through an examination of the traditional Chinese color utilization of the Sui and Tang dynasties. The essence of color alters when one enters the realm of artistic expression. Color expression is a type of purposeful design and so has its own connotation.

II. Theoretical background

2.1 The existence of traditional Chinese color

Color is the presence of light caused by the sensory experience of visual perception, and these are based on the original color intuition and people's interpretation of color attributes. In Introduction to Color(2004), Paul Cilansky and Mary Pat Fisher of the United States, In China and the West, there are two approaches: one is to study color as a "thing," which is based on physical attributes of color, and the other is to research optical color to investigate the genesis of color, its components, and its application on various carriers from the standpoint of scientific discovery. The other option is to investigate the relationship between color and "people," the cognition, experience, and psychology that people form when using color, and the color principles and norms that are built on these cognition, experience, and psychology.

In Western countries, the Optical analysis technique theory of color standardized color qualities derived from the hue, brightness, and warm and cold contrast connection of color in nature. According to the study Minority Color Language Revealed: From Totemic Symbols to Social Symbols by Zhu Jinyu and Li Jiaquan in China, the gradual formation of the Chinese theory about traditional color and color hierarchy became the relationship of color philosophy and conceptual symbols interacting with traditional Chinese culture. Color's aesthetic, imaginative, and symbolic nature is a color system with symbolic connotations.

The symbolic system with the meaning and norm of forma, shape, idea, image, and concept is color's aesthetic, imagine, and symbolic elements. Color's meaning is directly tied to and has the nature of symbols.

2.2 The concept of traditional Chinese color

Claire.Pajaczkowskad's Visual Culture states(2001), "All cultures have a visual aspect. For most people, the visual aspect of culture is the imagery, style, and pictorial symbolism that are the most powerful components of the complex and elaborate communication system that is the building block of culture". It can be understood that the traditional Chinese concept of color is a fundamental factor in the formation and development of Chinese ecological civilization and native culture.

On the basis of color taste, traditional Chinese colors indicate cultural images and other functioning systems related to people's psychological views. Traditional Chinese colors evolved from stressing physical attributes to emphasizing philosophical and psychological conceptions of colors, resulting in the concept of psychological beliefs.

2.3 The concept of traditional Chinese color

The comprehension of the principle color research is the key to a true grasp of the color research issue, and it serves as a theoretical foundation and basic theory for the research at the theoretical level. In actuality, the usage of the idea of color is more of a structural concept of systematic construction, which is the consequence of the action of many structural relationships with one another. People in ancient China were very meticulous in their thinking and construction of the color idea system. In the color concept, the hues were consciously attached, forming a solid pair of color matching.

According to the Chinese scholar Gu Eigang in his book *Politics and History under the Theory of the Five Virtues of the Final Beginning*(1985), the color phases contain different levels of hue and their interaction. This researcher has assembled the contents of three color embodiment factors, as indicated in Table 1, based on the distinct degrees of color and their interplay presented in the color phases: 1) the color of the body spontaneously, 2) the color of the ruled, and 3) the color of cultural meaning interpretation.

Table 1. The three components of color

The three components of color		
Distinguish between	Species	Concept
Body spontaneity color	The unconscious behavior of the body	The expression of its stable structural existence forms a sense of color in the body
The color is regulated	The process of behavior is the result of "conscious" action	It is slowly evolved into an underlying consciousness, and then affects the body's perception of color
The Color of Cultural Implications Explained	It is more of a conscious process that reflects the spiritual condition of the times	To some extent, the elucidation of cultural implication is the involuntary expression of the color of the body

The analysis of the aforementioned aspects demonstrates that the operation of the concept of color will be a process that works in many ways, not as simple as the content of the constructs reviewed above. At certain stages, in a more dominant display. However, this supremacy is fleeting and is always quickly reintegrated into the wider systemic operation. The complexity of the ancient Chinese idea of color is reflected in this holistic operation of the elements.

2.4 Functional elements of color

Clotaire Rapaille's *The Culture Code*(2007) states, "The most developed intuition of the human senses is vision. Vision is an innate human intuition, but the way humans see the world is cultural. We see things from a cultural perspective". Culture is the most basic cause that induces desire and action. The representation of images is visually reminiscent of information. According to the "Triad Relationship" of visual expression types, Choi Albert Young, a professor of design at Hanyang University in South Korea, published in *Culture Code Brand Design Methodology*, classifies image representation types into real images (LI), abstract images (AI), and symbolic images (SI). The relationship between image representation types.

According to the preceding, visual identity of visual aspects can consistently deliver perceptual experience. For example, if a color contains enough visual features to demonstrate the color in a specific scenario, we communicate and build an understanding in our minds based on the color situation and color language. Based on the foregoing, these key features can be classified into three groups.

Direct Visual Representation (DVR): The method of presenting the subject in the most prominent and compelling way.

Abstract Visual Representation (AVR): With a variety of forms, abstract visual representation leaves a great deal of room for imagination.

Hierarchy Visual Representation (HVR): Organized according to the importance of visual and perceptual representation elements to determine the understanding of information.

Based on this theory, the relationship between the visual and perceptual elements of color is organized, and color is understood and expressed through the visual function "Visual Perception" and the brain function "Visual Cognition".

III. Analysis of examples of the elements of expression of traditional Chinese colors

3.1 The relationship between traditional Chinese colors and the expression of things


The notion of conceptual symbols as beliefs is derived from the physical features of color in order to underline the relationship between cognition and psychology generated by color as a carrier. This researcher writes about the Sui and Tang dynasties' representative usage of color kinds to symbolize things.

By evaluating the many sorts of things with representative colors in the Sui and Tang dynasties for the usage of traditional Chinese colors, a more thorough understanding of the performance of the aspects of color perception contained in representative colors may be acquired. It reflects the restrictions of traditional Chinese culture as well as the taboos of living practices. Color's essence changes in thought as much as in artistic representation. The utilization of traditional Chinese color idea systems is heavily impacted by Chinese culture, as is the presence of a color system dominated by conceptual intervention. The Sui and Tang dynasties' usage of traditional Chinese colors is examined through the lens of typical "official garments," and "folk costumes," expressions. Table 2 and Table 3 demonstrate this.

3.2 Color Case Study of Official Costumes

The establishment of "official clothing" is a watershed moment in Chinese politics and culture. It is a fresh turn in the way of construction, especially for the history of the Chinese color system. Color became a sign of rank, position, and dignity in ancient China, where the hierarchical difference of officials and people at all levels was always stressed. Official attire served as visual representations of qualitative change. Color arrogance and the emphasis on hierarchy are inextricably linked. The essential structure of culture is powerfully exposed from the standpoint of color use as one of the varieties of color manifestation.

Table 2. Analysis of color expression elements of officials' costumes

Analysis of color expression elements of officials' costumes		
	Color composition factors	Elements of visual expression of color
	Body spontaneous color: Yellow is the imperial color. Cyan is used as the dress color of military generals	Literal Image(LI): Representation of visual elements of color
	Color by rule: refinement of color and a clear hierarchy of ideas	Abstract Image (AI): Simple communication of perceptual information of color
	The coloring of cultural meanings: the concern for hierarchy, and the composition of the social dimension	Symbolic Image (SI): can be repeatedly identified and used


The colors used in "official dress" are shown in Table 2. Colors were very different under the Sui and Tang eras. Yellow, for example, was the color of the emperor. Cyan was adopted as the military generals' uniform color, and the color was developed and clearly defined in terms of rank. The official dress color was the major color in the process of the perceived elements of color, the existence of hierarchical color, and the composition of the color hierarchy system, and the inter-color was the secondary color. The cultural meaning of color, where hierarchy is concerned, has a direct impact on the composition and effective operation of the various levels of the state. The violation of the color hierarchy has an impact on its effectiveness and necessitates ongoing revision. It is obvious from the refinement of the rank of clothes that color rank is prestige. The attire worn by officials functioned as a sign of this qualitative shift. The symbolic aspect of the official's

outfit is very essential, and the symbolic representations express color perceptual elements that may be identified and employed frequently.

3.3 Color case study of folk costumes

"Folk costume" color expression was utilized in the Sui and Tang dynasties, reflecting the customary usage of color in China when the lower social class structure was prevalent. Color fads, preferences, and changes in folk costumes are a more genuine reflection and expression of the color of folk clothes in Sui and Tang dynasties elements of social life. The most direct expression of the shape is the color of folk clothing.

Table 3. Analysis of color expression elements of folk costumes

Analysis of color expression elements of folk costumes		
	Color composition factors	Elements of visual expression of color
	Body spontaneous color: red, green become the main color collocation visual expression. There is not a very fixed collocation of colors	Literal Image(LI): Representation of visual elements of color
	Being the rule color: white is considered to be the most essential meaning without dyeing and without decoration	Abstract Image (AI): Simple communication of perceptual information of color
	The color of cultural meaning interpretation: the color of the dress reflects the reflection of the class level and social class hierarchy	Symbolic Image (SI): can be repeatedly identified and used

The color types of "folk costumes" are represented in Table 3 Costume color developed a color idea and color hierarchy of power, wealth, and prestige in the Sui and Tang dynasties. The costume's color is the most immediate depiction of the shape. Green became the main hue with visual performance from the figure of the woman's picture of red. Dress color with no one extremely fixed with. This visual color represents the color of the actual visual elements. at the time, there is a lot of pressure on the people in the world, and there is a lot of pressure on the people in the world, including the people in the world, and the people in the world, and the people in the world. The abstract visuals allow for the simple communication of the perceptual message of color. The interpretation of cultural meanings reveals that the hue of the Sui and Tang dynasties' clothes reflected class levels, with the lower social classes dominating the use of color. The symbolic representations demonstrate how color's perceptual constituents can be identified and used frequently.

3.4 Results of the analysis of examples of the expressive elements of traditional Chinese colors

This scholar writes on expressive things with representative styles of color use in the Sui and Tang dynasties. The analysis of the different types of expression things with representative colors in the Sui and Tang dynasties of Chinese traditional color use can reflect the observation and imagination of colors, the delicacy of observation and description of colors, the visual elements and perceptual elements of colors, the visual elements and perceptual elements of colors in the principles and methods of expression of things. The color experience demonstrated by costumes is a type of experience and observation of the visual hue, a distinct manifestation of the cognitive experience of the essence offered by color, a color experience applied to visibility. The perceptual experience of color created by the cultural part of cognitive color is another type of color experience. Because for the user, this kind of color application with significant cultural meaning has a powerful effect on the meaning level well beyond the color feeling supplied by the visual experience of color. Thus, the symbolic expression of color use enables the perceptual constituents of color to be identified and employed again.

IV. Conclusion

This traditional Chinese color study is a color concept that considers the physical properties of color and psychological perception, as expressed in the traditional Chinese color concept is the process of imagery and emotion materialization, reflecting the traditional Chinese color concept contains profound cultural implications, rich ideological content, psychological, and unique value orientation for the purpose.

The traditional Chinese color philosophy says that color can be employed as an expressive sign to achieve the assessment of information and emotion by combining visual and perceptual characteristics. Color composition and visual expression of color factors recognize that color visual elements and perceptual elements are founded on people's original color intuition for color qualities, and hence affect people's psychology.

For the use of color visual elements and color perceptual elements of purposeful construction in the use of modern design, color can be used as the expression of symbolic properties, to achieve the color of information and emotional judgment, is the most critical meaning of color has a functional element of visual communication.

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